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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/863,046	05/22/2001	John J. Light	10559-455001	8351

7590

05/20/2004

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EXAMINER

NARAYANASWAMY, SINDYA

ART UNIT

PAPER NUMBER

2174

DATE MAILED: 05/20/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

JK

Office Action Summary

Application No.

09/863,046

Applicant(s)

LIGHT ET AL.

Examiner

Sindya Narayanaswamy

Art Unit

2174

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-24 are presented for examination.
2. The drawings were received on 2/17/04. These drawings are accepted by the examiner.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made. Claims 3-5, 8, 11-13, 16, 19-21 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuda, US-6,346,956.

2. Claims 1- 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuda, US-6,346,956 in view of Suzuki et al (hereinafter Suzuki), US-5,736,982.

3. As per claim 1, Matsuda teaches a method of selecting a target object in a virtual three-dimensional space, comprising:

identifying objects, including the target object, in the virtual three-dimensional space (Fig. 27; col. 4, lines 22-23).

Matsuda does not specifically teach the method of determining distances between the objects and a point in the virtual three-dimensional space or the prioritizing of the objects

based on distances and identities of the objects and then selecting the target object from among the objects based on priority.

However, Suzuki teaches the method of determining distances between the objects and a point in the virtual three-dimensional space or the prioritizing of the objects based on distances and identities of the objects and then selecting the target object from among the objects based on priority (*calculating distance between avatars*) (*grading based on five levels*) (*select means*) (col. 10, lines 15-40, col. 15, lines 32-48, col. 29, lines 6-10). It would have been obvious to combine the teaching of Matsuda with Suzuki's methods of determining distances and assigning priorities in order to create a method in which distance information between objects is maintained for tracking purposes and selection purposes based on selectivity/priority.

4. As per claim 2, Matsuda teaches the method wherein the objects comprise one or more of a link object (anchor) and non-link object (col. 5, lines 41-52).

5. As per claim 6, Matsuda teaches the method wherein identifying comprises distinguishing between a link object and a non-link object (anchor objects vs. non-anchor objects) (Fig. 35; col. 37, lines 57-67).

6. As per claim 7, Matsuda teaches the method further comprising: receiving coordinates based on a user input; and locating the objects in the virtual three-dimensional space based on the coordinates (*detailed coordinate value information*) (Fig. 32; col. 33, lines 39-56).

7. As per claims 9, 10, 14, 15, 17, 18, 22 and 23, they are the apparatus and article claims of claims 1, 2, 6 and 7 and rejected on the same basis.

8. As per claims 3 and 4, Matsuda does not teach the method as in claims 1 and 2 wherein prioritizing comprises assigning a higher priority to the non-link objects than to the link objects if the distances meet a predetermined criterion or assigning higher priority to the link object if the link object is closer to the point than a non-link object by a predetermined distance. However, official notice is taken that prioritizing objects is well known in the art, therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to give higher priority to the non-link objects because the link objects do not represent actual data, as non-link objects do and give higher priority to link objects when they are easier to access, based on the predetermined distance factor.

9. As per claim 5, Matsuda does not teach the method as in claim 1, wherein the predetermined distance comprises 0x1000000. However, official notice is taken that fixing predetermined distances of objects is well known in the art, therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to fix the distance between linked and non-linked objects in order to for objects to be prioritized and selected.

10. As per claim 8, Matsuda does not specifically teach the method as in claim 1, wherein determining the distances comprises obtaining differences between coordinates in the virtual three-dimensional space for the objects and coordinates in the virtual three-dimensional space for the point. However, official notice is taken that calculating distance based on XYZ axis coordinate points is well known in the art, therefore it would have been obvious to one ordinary skill in the art at the time of the invention to use coordinate calculation as the method to determine the distance between the objects in the three-dimensional space.

11. As per claims 11-13, 16, 19-21 and 24, they are the apparatus and article claims of claims 1-8 and are rejected on the same basis.

Response to Argument

12. Applicant's arguments with respect to claim 1, 9 and 17 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- a) US 5732232 – position/coordinate maintenance
- b) US 6628307 – interface indicating location of items

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14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sindya Narayanaswamy whose telephone number is (703) 305-8473. The examiner can normally be reached on 8 am to 5 pm, first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid can be reached on (703) 308-0640. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9000.

Sindya Narayanaswamy
May 11, 2004

Kristine Kincaid
KRISTINE KINCAID
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100